

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-10 (canceled)

11. A double-sided indexable cutting insert for chip removing machining; the insert comprising a negative, generally polygonal body having a plurality of corners; the body having a top side and a bottom side interconnected by an edge surface; a plurality of upper major cutting edges formed at a transition between the top side and the edge surface; a plurality of lower major cutting edges formed at a transition between the bottom side and the edge surface; adjacently situated major cutting edges at each of the top and bottom sides being interconnected by corner cutting edges disposed along respective corners of the insert; each corner cutting edge comprising a minor cutting edge and a nose cutting edge; the nose cutting edge extending to the respective minor cutting edge from a respective major cutting edge; a bisector of each corner cutting edge intersecting the nose cutting edge; each corner cutting edge being asymmetrical with respect to its respective bisector; the nose cutting edge of each corner cutting edge defined by a first radius, and the respective minor cutting edge defined by a second radius longer than the first radius; the nose cutting edges of the top side at least touching a common top plane; the nose cutting edges of the bottom side at least touching a common bottom plane oriented parallel to the top plane; wherein an imaginary line which extends

perpendicular to the top and bottom planes and which intersects the minor cutting edge of any cutting corner at a location in-between opposite ends of such minor cutting edge, passes through the body.

12. The cutting insert according to claim 11 wherein the imaginary line intersects the edge surface at a location substantially midway between the top and bottom surfaces.

13. The cutting insert according to claim 12 wherein the imaginary line coincides with the edge surface until it intersects the body.

14. The cutting insert according to claim 11 wherein a portion of the edge surface disposed to one side of the bisector of each corner extends from a nose cutting edge of the top side towards a minor cutting edge on the bottom side and forms a downwardly facing step substantially midway between the top and bottom sides; a portion of the edge surface disposed to the other side of the bisector of the same corner extending from a nose cutting edge of the bottom side towards a minor cutting edge of the top side and forming an upwardly facing step substantially midway between the top and bottom sides.

15. The cutting insert according to claim 14 wherein each step is substantially parallel to the top and bottom sides.

16. The cutting insert according to claim 15 wherein each step forms an angle of substantially ninety degrees with the imaginary line.

17. The cutting insert according to claim 11 wherein the edge surface forms a clearance angle with each of the top and bottom sides, the clearance angles being constant around the periphery of the insert.

18. The cutting insert according to claim 11 wherein the entire insert comprises cubic boron nitride (CBN).

19. The cutting insert according to claim 18 wherein the insert comprises a combination of cubic boron nitride (CBN) and cemented carbide, with the cutting corners comprised of brazed-on CBN plates.

20. A method of manufacturing a double-sided, indexible cutting insert for chip removing machining from a plate of a hard wear-resistant material having a thickness defined between top and bottom sides, the plate being of generally polygonal shape defining a plurality of corners, the method comprising the steps of:

A) fastening the plate in a fixture;

B) machining a first corner of the plate along a portion thereof extending from the top side for about one-half of the plate thickness, to form a curved edge surface portion and a top curved corner cutting edge comprised of a top nose cutting edge and a top minor cutting edge;

C) inverting the plate in the fixture to reverse the positions of the top and bottom sides;

D) machining the first corner along a remaining portion thereof to form another curved edge surface portion, and a bottom curved corner cutting edge comprised of a bottom nose cutting edge and a bottom minor cutting edge, wherein the bottom nose cutting edge is situated opposite the top minor cutting edge, and the bottom minor cutting edge is situated opposite the top nose cutting edge, and wherein an imaginary line extends perpendicular to top and bottom parallel planes that are touched by respective top and bottom nose cutting edges, and intersects either of the minor cutting edges at a location in between opposite ends of such minor cutting edge, the imaginary line passing through the plate; and

E) performing steps B and D on a second corner of the plate to render the insert indexible.

21. The method according to claim 20 wherein the machining in steps B and D comprises grinding.

22. The method according to claim 20 wherein steps B and D further comprise forming the top and bottom nose cutting edges having a first radius and

forming the top and bottom minor cutting edges having a second radius longer than the first radius.